Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	IAC Strasburg, LLC
Facility Name:	IAC Strasburg, LLC
Facility Location:	806 East Queen Street Strasburg, Virginia
Registration Number:	80964

Permit Number	Effective Date	Expiration Date
VRO80964	January 8, 2009	January 7, 2014

DRAFT

Significant Modification Date

Regional Director

Signature Date

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I. Facility Information

Permittee
IAC Strasburg, LLC
806 East Queen Street
Strasburg, Virginia 22657

Responsible Official
Mr. Chris Gray
Plant Manager

Facility
IAC Strasburg, LLC
806 East Queen Street
Strasburg, Virginia 22657

Contact Person
Mr. Ben Folmar
Human Resources Manager
(540) 465-6218

County-Plant Identification Number: 51-171-0058

Facility Description:

NAICS 326199 – All Other Plastics Product Manufacturing

IAC Strasburg, LLC is involved in the manufacturing of plastic automotive interior trim components. Manufacturing processes include: painting, injection molding, foam production, adhesive application, and rotocast molding.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Surface Coating Operations and Ancillary Units							
PL1-PAINT-1B	1	One Spray Booth equipped with HVLP guns and an electric drying oven (PL1-1B-OV)	1.0 gal/hr	Dry Filter	PL1-DF1	PM PM-10	11/15/2010, as amended 10/7/2011
				HVLP guns, Electric Drying Oven	PL1-HVLP1, PL1-1B-OV	VOC	
PL2-PAINT-R/T-020	2-1A	One Binks Paint Booth equipped with three (3) HVLP guns and a 0.16 MMBtu/hr natural gas-fired drying oven (PL2-PAINT-OV)	5.0 gal/hr	Dry Filter	PL2-DF2	PM PM-10	11/15/2010, as amended 10/7/2011
				HVLP guns, Natural Gas Drying Oven	PL2-HVLP1, PL2-PAINT-OV	VOC	
PL2-GB1-Line 1	2-1B	One Glue/Paint Application Line which includes one spray booth equipped with HVLP guns, dry filters and a 0.504 MMBtu/hr natural gas-fired curing oven (PL2-GB1-OV)	5.0 gal/hr	Dry Filter	PL2-GB1-DF1	PM PM-10	11/15/2010, as amended 10/7/2011
				HVLP guns, Natural Gas Curing Oven	PL2-HVLP2, PL2-GB1-OV	VOC	
Miscellaneous							
RC2	-	Rotocast 2 equipped with two ovens (PL2-OV3 and 4) and cooling chambers	-	--	-	-	-
PL3-MR-IF	-	Impact Foam line Mold Release	-	-	-	-	-
CC1	-	Plant 1 Mold Shop Parts Washer	-	-	-	-	-
MOLD-CLN	-	Mold Cleaning – aerosol cans used at injection press and in Plant 1 Mold Shop to clean steel molds and dyes	-	-	-	-	-
Paint-CLN	-	Paint Gun Cleaner	-	-	-	-	-

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement

III. Surface Coating Equipment Requirements (PL1-PAINT-1B, PL2-PAINT-R/T-020, and PL2-GB1-Line 1)

A. Limitations

1. Particulate matter (PM/PM-10) emissions from the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) shall be controlled by dry filters with a control efficiency of no less than 97.4 percent. The dry filters shall be provided with adequate access for inspection and shall be in operation when the spray booth is operating. The dry filters shall be installed in an accessible location and shall be maintained by the permittee such that they are in proper working order at all times.

   (9 VAC 5-80-110 and Conditions 2 and 3 of 11/15/2010 Permit, as amended 10/7/2011)

2. PM/PM-10 and volatile organic compound (VOC) emissions from the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) shall be controlled by the use of High Volume Low Pressure (HVLP) spray guns (or equivalent control upon approval by DEQ).

   (9 VAC 5-80-110 and Conditions 4 and 5 of 11/15/2010 Permit, as amended 10/7/2011)

3. The monthly average glue VOC content shall not exceed 0.4 pounds per gallon of coating as applied in the glue/paint application line (PL2-GB1-Line 1).

   (9 VAC 5-80-110 and Condition 6 of 11/15/2010 Permit, as amended 10/7/2011)

4. The monthly average VOC content of the paints used on the glue/paint application line (PL2-GB1-Line 1) shall not exceed 3.0 pounds per gallon of coating applied.

   (9 VAC 5-80-110 and Condition 7 of 11/15/2010 Permit, as amended 10/7/2011)

5. At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.

   (9 VAC 5-80-110 and Condition 8 of 11/15/2010 Permit, as amended 10/7/2011)

6. The annual throughput of VOC to the glue/paint spray application line (PL2-GB1-Line 1) shall not exceed 4.3 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   (9 VAC 5-80-110 and Condition 12 of 11/15/2010 Permit, as amended 10/7/2011)

7. The annual throughput of VOC to the spray booth (PL1-PAINT-1B) shall not exceed 2.7 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   (9 VAC 5-80-110 and Condition 13 of 11/15/2010 Permit, as amended 10/7/2011)

8. The annual throughput of VOC to the spray booth (PL2-PAINT-R/T-020) shall not exceed 5.2 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
   (9 VAC 5-80-110 and Condition 14 of 11/15/2010 Permit, as amended 10/7/2011)

9. Emissions from the operation of the spray booth (PL1-PAINT-1B) shall not exceed the limits specified below:

Particulate Matter (PM)	0.03 lbs/hr	0.06 tons/yr
PM-10	0.03 lbs/hr	0.06 tons/yr
Volatile Organic Compounds	1.42 lbs/hr	2.7 tons/yr

   Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these limits may be determined as stated in Condition numbers III.A.1, III.A.2, III.A.5, and III.A.7.

   (9 VAC 5-80-110 and Condition 15 of 11/15/2010 Permit, as amended 10/7/2011)

10. Emissions from the operation of the spray booth (PL2-PAINT-R/T-020) shall not exceed the limits specified below:

Particulate Matter (PM)	0.17 lbs/hr	0.17 tons/yr
PM-10	0.17 lbs/hr	0.17 tons/yr
Volatile Organic Compounds	35.5 lbs/hr	5.2 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these limits may be determined as stated in Condition numbers III.A.1, III.A.2, III.A.5, and III.A.8.

(9 VAC 5-80-110 and Condition 16 of 11/15/2010 Permit, as amended 10/7/2011)

11. Emissions from the operation of the glue/paint application line (PL2-GB1-Line1) shall not exceed the limits specified below:

Particulate Matter (PM)	0.28 lbs/hr	0.14 tons/yr
PM-10	0.28 lbs/hr	0.14 tons/yr
Volatile Organic Compounds	35.5 lbs/hr	4.3 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these limits may be determined as stated in Condition numbers III.A.1, III.A.2, III.A.3, III.A.4, III.A.5, III.A.6, and III.B.1.

(9 VAC 5-80-110 and Condition 17 of 11/15/2010 Permit, as amended 10/7/2011)

12. Visible emissions from the spray booths (PL1-PAINT-1B, PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line1) and curing oven exhausts (PL1-1B-OV, PL2-PAINT-OV, and PL2-GB1-OV) shall not exceed five percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-80, 9 VAC 5-80-110, and Condition 18 of 11/15/2010 Permit, as amended 10/7/2011)

13. At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

In order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions, the permittee shall:

a. Develop a maintenance schedule and maintain records of all scheduled and non-schedule maintenance.

b. Maintain an inventory of spare parts.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training, and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 22 of 11/15/2010 Permit, as amended 10/7/2011)

B. Monitoring

1. The glue/paint application line (PL2-GB1-Line 1) shall be equipped with a device to continuously measure the differential pressure drop through the spray booth dry filters. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the spray booth is operating. All observations and corrective actions taken shall be recorded.

   (9 VAC 5-80-110 and Condition 9 of 11/15/2010 Permit, as amended 10/7/2011)

2. The permittee shall perform inspections of the spray booths (PL1-PAINT-1B, PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line1) each day of operation. The inspections shall include a check of correct filter placement and filter condition. To ensure good performance, the control monitoring devices installed on the spray booths and the glue/paint application line used to continuously measure the differential pressure drop across the filters, shall be observed by the permittee with a frequency of not less than once per day. All observations and corrective actions taken shall be recorded.
   (9 VAC 5-80-110 and Condition 10 of 11/15/2010 Permit, as amended 10/7/2011)

3. For the purpose of calculating VOC emissions from the glue/paint spray booths (PL1-PAINT-1B, PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line

1), the VOC content of each coating and adhesive, as applied, each reducer, and each cleaning solution shall be based on formulation data as shown on its Material Safety Data Sheet (MSDS), Certified Product Data Sheets (CPDS), or other vendor information as approved by DEQ. If the VOC content is given as a range, the maximum value shall be used.
(9 VAC 5-80-110)

4. The permittee shall determine compliance with the emission limits in Conditions III.A.9, III.A.10, and III.A.11 as follows:

   a. To determine annual emissions of VOC from coating, adhesive, reducer, and cleaning solution usage:

$$E = \sum_{i=1}^{n} C_i G_i$$

..... Equation 1

Where:

E = VOC emission rate of the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020), and the glue/paint application line (PL2-GB1-Line 1) (lbs/time period)

C_i = VOC content of each material (including coatings, adhesives, reducers, and cleaning solutions , i) applied in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) during the time period (lbs/gal)

G_i = Number of gallons of each material (including coatings, adhesives, reducers and cleaning solutions, i) applied in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) during each month (gal)

Annual emissions shall be calculated as the sum of each consecutive 12-month period.

   b. To calculate particulate emissions on an hourly, monthly or annual basis:

$$E = \left(\sum_{i=1}^{n} P_i G_i D_i \right) \left(\frac{100 - T}{100} \right) \left(\frac{100 - CE}{100} \right)$$

.....Equation 2

Where:

E = particulate emission rate for the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint coating line (PL2-GB1-Line 1) (lb/time period)

P_i = solids content of each coating or adhesive (i) applied in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) during the time period (lb solids/lb glue/paint)

G_i = number of gallons of each coating or adhesive (i) applied in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) during the time period (gal)

D_i = density of each coating or adhesive (i) applied in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) during the time period (lb/gal)

T = transfer efficiency of the spray guns used in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) (%)
= 50 (unless records demonstrate a higher value is appropriate)

CE = control efficiency of the filters on each of the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line, and PL2-GB1-Line 1) (%)
= 97.4, unless records demonstrate a higher value is appropriate

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

c. To calculate the monthly average VOC content:

$$AC = \frac{\sum_{i=1}^{n} C_i G_i}{\sum_{i=1}^{n} G_i}$$

..... Equation 3

Where:

AC = average VOC content of paint/glue/adhesive coatings applied in the glue/paint application line (PL2-GB1-Line 1) (lb/gal)

C_i = VOC content of each coating (i) applied in the glue/paint application line (PL2-GB1-Line 1) during each month (lb/gal)

G_i = number of gallons of each coating (i) applied in the glue/paint application line (PL2-GB1-Line 1) during each month (gal)

Average VOC content shall be calculated once each calendar month.

(9 VAC 5-80-110)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

1. Monthly and annual throughput (in gallons) of each coating used in each of the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period.

2. Monthly and annual VOC throughput (in tons) of each coating used in each of the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period.

3. Total hours that each spray booth (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1) operates on a monthly basis.

4. Monthly and annual VOC emissions (in tons) from coating usage in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

5. Monthly and annual PM/PM-10 emissions (in tons) from coating usage in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

6. Material Safety Data Sheets (MSDS), Certified Product Data Sheets (CPDS), or other vendor information as approved by DEQ showing coating name, VOC content, toxic compound content, water content, and solids content for each coating, adhesive, reducer, and cleaning solution used in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1).

7. Results of all stack tests and visible emission evaluations.

8. Operation and control device monitoring records for the dry filters as required in Condition III.B.2.

9. Records of manufacturer's specifications for the dry filters used in the glue/paint application line (PL2-GB1-Line 1) and the spray booths (PL2-PAINT-R/T-020 and PL1-PAINT-1B) to demonstrate a control efficiency equal to or greater than 97.4 percent.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110 and Condition 19 of 11/15/2010 Permit, as amended 10/7/2011)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Upon request from the DEQ, test ports shall be provided at the appropriate locations. (9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 11 of 11/15/2010 Permit)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

(9 VAC 5-80-110)

IV. Facility Wide Conditions - Hazardous Air Pollutants

A. Limitation

Hazardous air pollutant (HAP) emissions, as defined by §112(b) of the Clean Air Act, from the facility shall not exceed 9.80 tons per year of any individual HAP or 24.50 tons per year of any combination of HAPs, calculated monthly as the sum of each consecutive 12-month period. HAPs which are not accompanied by a specific CAS number (as listed in Attachment A) shall be calculated as the sum of all compounds containing the named chemical when determining compliance with the individual HAP emissions limitation of 9.80 tons per year.

(9 VAC 5-80-110)

B. Monitoring and Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with the emission limitations in Condition IV.A of this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

a. The monthly and annual throughput (in tons) of each HAP-containing material used at the facility. This includes, but is not limited to, materials used in all manufacturing processes (to include solvents used in cleaning), fuel burning equipment and miscellaneous sources such as insignificant emission units and maintenance, repair, and construction activities (coatings, adhesives, lubricants, etc.). Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.

b. The monthly and annual individual and total HAP emissions (in tons) from the facility. This includes, but is not limited to, materials used in all manufacturing processes, fuel burning equipment and miscellaneous sources such as insignificant emission units, equipment leaks, and maintenance, repair, and construction activities (coatings, adhesives, lubricants, etc.). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110)

C. Reporting

A semiannual report for the preceding six-month period containing the following information to determine compliance with the individual and total HAP emission limits established in Condition IV.A shall be submitted to the DEQ no later than March 1 and

September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include, at a minimum:

a. Monthly and annual throughput (in tons) of each HAP-containing material used at the facility.

b. Monthly and annual individual and total HAP emissions (in tons) from the facility.

The information listed above may be included in the reports required in Condition VIII.C.3.
(9 VAC 5-80-110)

V. Hazardous Air Pollutant Conditions

Since the permittee did not obtain federally enforceable limits on its facility-wide emissions of hazardous air pollutants (HAPs) to below major-source thresholds prior to the specified date, the following federal requirements, derived from 40 CFR Part 63, apply. For each standard, "requirements" include all control, operational, work practice, monitoring, recordkeeping, reporting, and testing requirements, as applicable.

A. Limitations

1. Except where this permit is more restrictive, the permittee shall comply with the requirements of 40 CFR Part 63 Subpart III (Flexible Polyurethane Foam Production NESHAP.
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 Subpart III)

2. The permittee shall comply with the following provisions:

   a. A HAP or HAP-based material shall not be used as an equipment cleaner to flush the mixhead, nor shall it be used elsewhere as an equipment cleaner in a molded flexible polyurethane foam process, with the following exception. Diisocyanates may be used to flush the mixhead and associated piping during periods of startup and maintenance, provided that the diisocyanate compounds are contained in a closed-loop system and are re-used in production.

   b. A HAP-based mold release agent shall not be used in a molded flexible polyurethane foam source process.

   (9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63.1300)

B. Recordkeeping

Except where this permit is more restrictive, the permittee shall record and retain all information necessary to determine compliance with 40 CFR Part 63 Subpart III.
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 Subpart III)

VI. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PL1-1B-OV	Drying oven for front paint line in Plant 1	9 VAC 5-80-720 C	-	0.16 MMBTU/hr
PL2-PAINT-OV	Natural gas-fired infrared oven in Plant 2	9 VAC 5-80-720 C	-	0.5 MMBTU/hr
PL2-OV3-4	Two curing ovens for rotocast operations	9 VAC 5-80-720 C	-	1.5 MMBTU/hr (each)
SH1-40	Forty space heaters in Plant 1	9 VAC 5-80-720 C	-	0.26 MMBTU/hr (each)
SH41-57	Seventeen space heaters in Plant 2	9 VAC 5-80-720 C	-	0.26 MMBTU/hr (each)
SH58-73	Sixteen space heaters in Plant 3	9 VAC 5-80-720 C	-	0.26 MMBTU/hr (each)
SH74-76	Three space heaters in Plant 4	9 VAC 5-80-720 C	-	2.817 MMBTU/hr (each)
SH77-78	Two space heaters in Plant 4	9 VAC 5-80-720 C	-	1.15 MMBTU/hr (each)
PL2-VF1	Vacuum forming machine – form station & oven station	9 VAC 5-80-720 B	VOC	-
PL2-VF2	Vacuum forming machine – form station & oven station	9 VAC 5-80-720 B	VOC	-
PL2-OV-GLUE1	Infrared Drying/Curing Oven	9 VAC 5-80-720 C	-	0.504 MMBTU/hr
PL2-Line 21	Conveyorized foam production line (Plant 2 –black foam	9 VAC 5-80-720 B	VOC HAPs	-
PL2-Line 22	Conveyorized foam production station (Plant 2) – black foam	9 VAC 5-80-720 B	VOC HAPs	-
PL3-FOAM7	Carousel foam production station (Plant 3) – rubinate/ rubiflex foam	9 VAC 5-80-720 B	VOC HAPs	-
PL3-FOAM9	Conveyorized foam production station (Plant 3) –white foam	9 VAC 5-80-720 B	VOC HAPs	-

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PL3-FOAM-SM	Foam station – EA foam	9 VAC 5-80-720 B	VOC, HAPs	-
PL3-FOAM2	Carousel foam production station (Plant 3) – white foam	9 VAC 5-80-720 B	VOC HAPs	-
PL3-FOAM4	Conveyorized foam production (Plant 3) – white foam	9 VAC 5-80-720 B	VOC HAPs	-
PL3-FOAM8	Conveyorized foam production (Plant 3) – black foam	9 VAC 5-80-720 B	VOC HAPs	-
PL3-FOAM10	Conveyorized foam production (Plant 3) – white foam	9 VAC 5-80-720 B	VOC HAPs	-
PL3-ABS Welder	Saturn (Service)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-Sandblast	Sand Blast Machine – Maintenance Shop	9 VAC 5-80-720 B	PM-10	-
BLR-1	York-Shipley Fire Tube Boiler	9 VAC 5-80-720 C	-	5 MMBtu/hr
PL1-HP-Cleaner	Hi-pressure Mold Cleaner	9 VAC 5-80-720 B	VOC, PM-10	-
Resin-Dryers	4 dryer units for ABS & Polycarbonate	9 VAC 5-80-720 B	Criteria Pollutants	-
PL2-Gasketing	PL2-Gasketing	9 VAC 5-80-720 B	VOC	-
PL2-Insulators	2 Hot melt machines for insulators	9 VAC 5-80-720 B	VOC	-
Room A				
PL1-RESIN 1	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 2	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 3	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 4	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 5	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 6	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 7	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PL1-RESIN 8	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 9	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 71	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL-RESIN 14A	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 73	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 74	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 75	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 76	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 78	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 79	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 80	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 81	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
Room B				
PL1-RESIN 19	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 20	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 21	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 22	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 65	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 24	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 25	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 30	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 31	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 32	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PL1-RESIN 34	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 35	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 36	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 37	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 63	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
Room C				
PL1-RESIN 27	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 28	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 38	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 39	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 40	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 41	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 42	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 43	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 44	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 45	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL1-RESIN 66	Injection Molding Machine (Plant 1)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 11	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 12	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 15	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 18	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 23	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PL3-RESIN 48	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 49	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 50	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 51	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 69	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 70	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL3-RESIN 83	Injection Molding Machine (Plant 3)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 56	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 57	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 58	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 59	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 60	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 53	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 64	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 47	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 67	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 68	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 72	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-
PL4-RESIN 82	Injection Molding Machine (Plant 4)	9 VAC 5-80-720 B	VOC HAPs	-

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 63 Subpart MMMMM	Flexible Polyurethane Foam Fabrication Operations	IAC does not operate a flame lamination affected source or a loop slitter affected source and therefore, is not subject to Subpart MMMMM per 40 CFR 63.8782(a).
40 CFR 63 Subpart T	Halogenated Solvent Cleaning	IAC does not have a solvent cleaning machine which uses any one or combination of the following halogenated solvents in a total concentration greater than 5% by weight: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, and chloroform and therefore, is not subject to Subpart T per 40 CFR 63.460(a).

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

VIII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

   (9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

   b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

      (1) Exceedance of emissions limitations or operational restrictions;

      (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

      (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

7. One copy of the annual compliance certification shall be submitted to the EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

   R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Valley Regional Office, within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition VIII.C.3. of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Valley Regional Office, by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Valley Regional Office.

(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.

(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating

scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

   d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any

steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).

(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

BB. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

IX. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

A. Limitations

1. The throughput of United Paint Crosslinker used in the spray booth (PL2-PAINT-R/T-020) shall not exceed 0.625 gallons per hour.

   (9 VAC 5-60-320, 9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 28 of 11/15/2010 Permit, as amended 10/7/2011)

2. The throughput of United Paint Crosslinder used in the spray booth (PL2-PAINT-R/T-020) shall not exceed 100 gallons per year, calculated monthly as the sum of each consecutive 12-month period.

   (9 VAC 5-60-320, 9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 29 of 11/15/2010 Permit, as amended 10/7/2011)

3. The throughput of United Paint Clear Hardener used in the glue/paint application booth (PL2-GB1-Line 1) shall not exceed 3.0 gallons per hour.

   (9 VAC 5-60-320, 9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 30 of 11/15/2010 Permit, as amended 10/7/2011)

4. The throughput of United Paint Clear Hardener used in the glue/paint application booth (PL2-GB1-Line 1) shall not exceed 972 gallons per year, calculated monthly as the sum of each consecutive 12-month period.

   (9 VAC 5-60-320, 9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 31 of 11/15/2010 Permit, as amended 10/7/2011)

5. Facility-wide emissions of 1,6-hexamehtylene diisocyanate from the plastic automotive interior trim component manufacturing facility shall not exceed the limits specified below:

1,6-hexamethylene dissocyanate (CAS No. 822-06-0)	0.002244 lbs/hr	0.00493 tons/yr

   Hourly emissions shall be calculated monthly as a monthly average using the formula shown in Condition IX.B.1.b. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period using the formula shown in Condition IX.B.1.a.

   (9 VAC 5-60-320, 9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 32 of 11/15/2010 Permit, as amended 10/7/2011)

B. Monitoring and Recordkeeping

1. The permittee shall determine compliance with the toxic pollutant emission limits in Condition IX.A.5. as follows:

   a. To calculate toxic compound emissions from spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and the glue/paint application line (PL2-GB1-Line 1):

$$E_t = \sum_{i=1}^{n} C_i G_i$$

..... Equation 4

Where:

E_t = Emission rate of toxic compound (t) (lb/time period)

C_i = Content of toxic compound (t) in each coating (i) utilized during the time period (lb/gal)

G_i = Number of gallons of each coating (i) utilized during the time period (gal)

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

   b. To calculate average hourly emission rates:

$$HE_t = \frac{E_t}{H}$$

..... Equation 5

Where:

HE_t = average hourly emission rate for toxic compound (t) (lb/hour)

E_t = emission rate of toxic compound (t) (lb/month)

H = Total number of hours of operation of spray booth during the month (hr/month)

Average hourly toxic compound emissions shall be calculated once each month.

(9 VAC 5-80-110 N, 9 VAC 5-80-300, and 9 VAC 5-60-320)

2. The permittee shall maintain records of all emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

   a. Hourly and annual throughput of 1,6-hexamethylene diisocyanate (CAS No. 822-06-0). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.

   b. Material Safety Data Sheets (MSDS) or other vendor information showing toxic compound content, water content, and solids content for each coating used in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and glue/paint application line (PL2-GB1-Line 1).

   c. Hourly and annual throughput (in gallons) of each material used in the spray booths (PL1-PAINT-1B and PL2-PAINT-R/T-020) and glue/paint application line (PL2-GB1-Line 1). Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period.

   d. Average hourly, monthly, and annual emissions (in pounds) of the toxic compound listed in Condition IX.A.5. Toxic compound emissions shall be calculated as shown in Condition IX.B.1. Average hourly emissions shall be calculated monthly. Annual emission shall be calculated monthly as the sum of each consecutive 12-month period.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
   (9 VAC 5-50-50, 9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 33 of 11/15/2010 Permit, as amended 10/7/2011)

C. Testing

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate test method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110 N and 9 VAC 5-80-300)

SOURCE TESTING REPORT FORMAT

Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

Copy of approved test protocol

Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
    a. Operating rate
    b. Test Methods
    c. Pollutants tested
    d. Test results for each run and the run average
    e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

Appendix

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

* Not applicable to visible emission evaluations

HAZARDOUS AIR POLLUTANT LIST

Note 1: Emissions for pollutant listings which do not have a specific CAS number must be totaled when determining major source applicability under Title V and for HAP regulations (i.e. 112(g) & (d)).

CAS#	NAME
see Note 1	ANTIMONY COMPOUNDS [1]
see Note 1	ARSENIC COMPOUNDS
see Note 1	BERYLLIUM COMPOUNDS
see Note 1	CADMIUM COMPOUNDS
see Note 1	CHROMIUM COMPOUNDS
see Note 1	COBALT COMPOUNDS
see Note 1	COKE OVEN EMISSIONS
see Note 1	CYANIDE COMPOUNDS [2]
see Note 1	GLYCOL ETHERS [3]
see Note 1	LEAD COMPOUNDS
see Note 1	MANGANESE COMPOUNDS
see Note 1	MERCURY COMPOUNDS
see Note 1	NICKEL COMPOUNDS
see Note 1	POLYCYCLIC ORGANIC MATTER/POM [4]
see Note 1	SELENIUM COMPOUNDS

CAS#	NAME
50 00 0	FORMALDEHYDE
51 28 5	2,4-DINITROPHENOL
51 79 6	ETHYL CARBAMATE/URETHANE
53 96 3	2-ACETYLAMINOFLUORENE
56 23 5	CARBON TETRACHLORIDE
56 38 2	PARATHION
57 14 7	1,1-DIMETHYLHYDRAZINE
57 57 8	BETA-PROPIOLACTONE
57 74 9	CHLORDANE
58 89 9	LINDANE (AND ALL OTHER STEREOISOMERS OF 1,2,3,4,5,6- HEXACHLOROCYCLOHEXANE)
59 89 2	N-NITROSOMORPHOLINE/NMOR
60 11 7	DIMETHYL AMINOAZOBENZENE/ 4-DIMETHYLAMINOAZOBENZENE
60 34 4	METHYL HYDRAZINE
60 35 5	ACETAMIDE
62 53 3	ANILINE & HOMOLOGUES
62 73 7	DICHLORVOS
62 75 9	N-NITROSODIMETHYLAMINE/NDMA
63 25 2	CARBARYL
64 67 5	DIETHYL SULFATE
67 56 1	METHANOL
67 66 3	CHLOROFORM
67 72 1	HEXACHLOROETHANE
68 12 2	DIMETHYLFORMAMIDE/N,N-DIMETHYLFORMAMIDE
71 43 2	BENZENE (INCLUDING BENZENE FROM GASOLINE)

71	55	6	METHYL CHLOROFORM/1,1,1-TRICHLOROETHANE
72	43	5	METHOXYCHLOR
72	55	9	2,2-BIS(P-CHLORPHENYL)-1,1-DICHLOROETHYLENE/DDE
74	83	9	METHYL BROMIDE/BROMOMETHANE
74	87	3	METHYL CHLORIDE/CHLOROMETHANE
74	88	4	METHYL IODIDE/IODOMETHANE
75	00	3	ETHYL CHLORIDE/CHLOROETHANE
75	01	4	VINYL CHLORIDE/CHLOROETHYLENE
75	05	8	ACETONITRILE
75	07	0	ACETALDEHYDE
75	09	2	METHYLENE CHLORIDE/DICHLOROMETHANE
75	15	0	CARBON DISULFIDE
75	21	8	ETHYLENE OXIDE
75	25	2	BROMOFORM
75	34	3	1,1-DICHLOROETHANE/ETHYLIDENE DICHLORIDE
75	35	4	VINYLIDENE CHLORIDE/1,1-DICHLOROETHYLENE
75	44	5	PHOSGENE/CARBONYLCHLORIDE
75	55	8	1,2-PROPYLENE IMINE
75	56	9	PROPYLENE OXIDE/1,2-EPOXYPROPANE
76	44	8	HEPTACHLOR
77	47	4	HEXACHLOROCYCLOPENTADIENE
77	78	1	DIMETHYL SULFATE
78	59	1	ISOPHORONE
78	87	5	PROPYLENE DICHLORIDE/1,2-DICHLOROPROPANE
79	00	5	1,1,2-TRICHLOROETHANE
79	01	6	TRICHLOROETHYLENE
79	06	1	ACRYLAMIDE
79	10	7	ACRYLIC ACID
79	11	8	CHLORACETIC ACID
79	34	5	1,1,2,2-TETRACHLOROETHANE
79	44	7	DIMETHYL CARBAMOYL CHLORIDE
79	46	9	2-NITROPROPANE
80	62	6	METHYL METHACRYLATE
82	68	8	PENTACHLORONITROBENZENE/QUINTOBENZENE
84	74	2	DIBUTYL PHTHLATE
85	44	9	PHTHALIC ANHYDRIDE
87	68	3	HEXACHLOROBUTADIENE
87	86	5	PENTACHLOROPHENOL
88	06	2	2,4,6-TRICHLOROPHENYL
90	04	0	O-ANISIDINE
91	20	3	NAPHTHALENE
91	22	5	QUINOLINE
91	94	1	3,3'-DICHLOROBENZIDENE
92	52	4	BIPHENYL
92	67	1	4-AMINODIPHENYL
92	87	5	BENZIDINE
92	93	3	4-NITRODIPHENYL
94	75	7	2,4-D, (DICHLOROPHENOXY/ACETIC ACID) (INCLUDING SALTS AND ESTERS)

95	95	4	2,4,5-TRICHLOROPHENOL
95	47	6	O-XYLENE
95	48	7	O-CRESOL
95	53	4	O-TOLUIDINE
95	80	7	2,4-TOLUENE DIAMINE/TOLUENE-2,4-DIAMINE
96	09	3	STYRENE OXIDE
96	12	8	1,2-DIBROMO-3-CHLOROPROPANE
96	45	7	ETHYLENE THIOUREA/ETU
98	07	7	BENZOTRICHLORIDE
98	82	8	CUMENE
98	86	2	ACETOPHENONE
98	95	3	NITROBENZENE
100	02	7	4-NITROPHENOL
100	41	4	ETHYL BENZENE
100	42	5	STYRENE, MONOMER/VINYL BENZENE
100	44	7	BENZYL CHLORIDE
101	14	4	4,4-METHYLENE BIS(2-CHLOROANILINE)
101	68	8	4,4'-METHYLENEDIPHENYL DIISOCYANATE/MDI
101	77	9	4,4-METHYLENE DIANILINE
106	42	3	P-XYLENE
106	44	5	P-CRESOL
106	46	7	1,4-DICHLOROBENZENE
106	50	3	P-PHENYLENEDIAMINE
106	51	4	QUINONE
106	88	7	1,2-EPOXYBUTANE
106	89	8	EPICHLOROHYDRIN
106	93	4	ETHYLENE DIBROMIDE/EDB/1,2-DIBROMOETHANE
106	99	0	1,3-BUTADIENE
107	02	8	ACROLEIN
107	05	1	ALLYL CHLORIDE
107	06	2	1,2-DICHLOROETHANE/ETHYLENE DICHLORIDE
107	13	1	ACRYLONITRILE
107	21	1	ETHYLENE GLYCOL
107	30	2	CHLOROMETHYL METHYL ETHER/CMME
108	90	7	CHLOROBENZENE
108	05	4	VINYL ACETATE
108	10	1	METHYL ISOBUTYL KETONE/HEXONE
108	31	6	MALEIC ANHYDRIDE
108	38	3	M-XYLENE
108	39	4	M-CRESOL
108	88	3	TOLUENE
108	95	2	PHENOL
110	54	3	HEXANE
111	42	2	DIETHANOLAMINE
111	44	4	DICHLOROETHYL ETHER/BIS(2-CHLOROETHYL)ETHER
114	26	1	PROPOXUR/BAYGON
117	81	7	DI-SEC-OCTYL PHTHLATE/BIS(2-ETHYLHEXYL)PHTHALATE
118	74	1	HEXACHLOROBENZENE
119	90	4	3,3-DIMETHOXYBENZIDINE

119	93	7	3,3-DIMETHYLBENZIDINE
120	80	9	CATECHOL
120	82	1	1,2,4-TRICHLOROBENZENE
121	14	2	2,4-DINITROTOLUENE
121	44	8	TRIETHYLAMINE
121	69	7	DIMETHYLANILINE
122	66	7	1,2-DIPHENYLHYDRAZINE
123	31	9	HYDROQUINONE/DIHYDROXYBENZENE
123	38	6	PROPIONALDEHYDE
123	91	1	1,4-DIOXANE/1,4-DIETHYLENEOXIDE
126	99	8	2-CHLORO-1,3-BUTADIENE/BETA-CHLOROPRENE
127	18	4	TETRACHLOROETHYLENE/PERCHLOROETHYLENE
131	11	3	DIMETHYL PHTHALATE
132	64	9	DIBENZOFURANS
133	06	2	CAPTAN
133	90	4	CHLORAMBEN
140	88	5	ETHYL ACRYLATE
151	56	4	ETHYLENIMINE
156	62	7	CALCIUM CYANAMIDE
302	01	2	HYDRAZINE
334	88	3	DIAZOMETHANE
463	58	1	CARBONYL SULFIDE
510	15	6	CHLOROBENZILATE
532	27	4	2-CHLOROACETOPHENONE
534	52	1	4,6-DINITRO-O-CRESOL (INCLUDING SALTS)
540	84	1	2,2,4-TRIMETHYLPENTANE
542	07	6	1,3-DICHLOROPROPENE
542	88	1	BIS-(CHLOROMETHYL) ETHER
584	84	9	TOLUENE-2,4-DIISOCYANATE/TDI
593	60	2	VINYL BROMIDE
624	83	9	METHYL ISOCYANATE
680	31	9	HEXAMETHYL PHOSPHORAMIDE/HMPA
684	93	5	N-NITROSO-N-METHYLUREA/NMU
822	06	0	HEXAMETHYLENE DIISOCYANATE
1120	71	4	1,3-PROPANE SULTONE
1319	77	3	CRESOLS/CRESYLIC ACID
1330	20	7	XYLENE ISOMERS AND MIXTURES
1336	36	3	POLYCHLORINATED BIPHENYLS/AROCHLORS
1582	09	8	TRIFLURALIN
1634	04	4	METHYL TERT BUTYL ETHER
1746	01	6	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN
7550	45	0	TITANIUM TETRACHLORIDE
7647	01	0	HYDROGEN CHLORIDE/HYDROCHLORIC ACID (GAS ONLY)
7664	39	3	HYDROGEN FLUORIDE/HYDROFLUORIC ACID
7723	14	0	PHOSPHOROUS
7782	50	5	CHLORINE
7803	51	2	PHOSPHINE
8001	35	2	TOXAPHENE/CHLORINATED CAMPHENE

The following pollutants and pollutant source categories are listed as HAPs under section 112(b) but are excluded from the definitions of toxics in the Virginia Regulations:

1. Asbestos NESHAP, 40 CFR 61 Subpart M (for asbestos removal, demolition and installation contact Virginia Department of Labor – 804/786-8009).
2. Fine Mineral Fibers.
3. Radionuclides (including radon).

[1] For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical as part of that chemical's infrastructure.

[2] *X'CN where X=H' or any other group where a formal dissociation may occur. For example, KCN or* $Ca(CN)_2$.

[3] Glycol ethers include mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol $R\text{-}(OCH_2CH_2)_n\text{-}OR'$
where: n = 1, 2, or 3
R = alkyl C7 or less, or phenyl or alkyl substituted phenyl
R' = H, or alkyl C7 or less, or carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate

[4] Includes substituted and/or unsubstituted polycyclic aromatic hydrocarbons and aromatic heterocycle compounds, with two or more fused rings, at least one of which is benzenoid in structure. Polycyclic Organic Matter is a mixture of organic compounds containing one or more of these polycyclic aromatic chemicals which include dioxins and furans. Polycyclic Organic Matter is generally formed or emitted during thermal processes including (1) incomplete combustion, (2) pyrolysis, (3) the volatilization, distillation or processing of fossil fuels or bitumens, or (4) the distillation or thermal processing of non-fossil fuels.